Kansas Department of Agriculture
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Adrian Polansky, Secretary
Kathleen Sebelius, Governor

Jon Appel, Plant Pathologist

Plant Disease in Kansas

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HIGHLIGHTS

Wheat disease survey has indicated low levels of disease across the state. Leaf rust was the most common disease found.

No new reports of pine wilt have been received over the past month in the western half of the state. Survey has focused on both small and large communities.

A new wheat viral disease has been detected in wheat. The impact is unknown but appears to be part of the wheat streak mosaic complex vectored by the wheat curl mite. The disease has been named triticum mosaic. It was described by Dallas Seifers from the KSU Ag Experiment Research Center in Hays, Kansas.

OUTLOOK

Weather may play an important role in any winter or early spring spread of wheat streak mosaic. Currently moderate to high levels of the disease are primarily associated with volunteer wheat. An extended period of unusually warm and windy weather may increase the pressure in nearby planted wheat.

PINES

Staffs of the Kansas Forest Service and the Kansas Department of Agriculture have been conducting surveillance of pines over the past month for pine wilt nematode. These activities have been primarily directed to the western half of the state in the communities. Some cities visited included Beloit, Norton, Hill City, Lincoln, Ness City, Dighton, Scott City, Johnson City, Hugoton, Meade, Larned, Pratt, and Lacrosse. No new observations of pine wilt were made although several samples were taken. The range of the nematode induced disease

is east of the line from Belleville in the north, Lyons in the central region, and Kingman in southern Kansas.

Information from Nebraska and Oklahoma correspondingly indicate a respective range of pine wilt disease in those states. Colorado has a few reports along the Front Range.

WHEAT

Late fall survey has been historically our first indication of pest problems that the new wheat crop may encounter in the spring. Survey over the past month has indicated a pretty healthy crop going into the fall and winter months. Stands for the most part are good with uniformity and 3-5 tillers.

Leaf rust was the most common disease. The disease was found in both volunteer and planted wheat in the western half of the state where survey was conducted. It can be characterized as light and scattered with a few fields with moderate infection. Occasionally in the fall, plants are affected to the extent that dieback or even death can occur but nothing near to that level was observed. Observations have also been made in northeastern Kansas and the disease is likely present across the state in planted wheat.

Speckled leaf blotch was recently observed in some southwestern fields. Again this disease can cause dieback like leaf rust. The fungal disease is only at trace levels currently.

Oat bird cherry aphids which vector barley yellow dwarf virus were observed in several counties of southwest Kansas.

Wheat streak mosaic complex is the primary disease of importance in fall survey. The wheat curl mite vectored virus generally moves from the summer volunteer wheat and weedy grasses to planted wheat in the fall. Conditions were good for this survey as temperatures were moderate and the wheat was fairly developed in many areas.

In the planted wheat over all, wheat streak mosaic was not observed to any extent to be of major concern. A few fields with considerable incidence were observed in Stanton (SW) County in southwest Kansas and a couple of planted fields in Pawnee (SC) County with light to moderate infestation.

The disease was observed in numerous volunteer wheat fields in the western region. High incidences were reported in some fields in Norton, Phillips, Smith, Gove, Pawnee, Hodgeman, and Gray counties. Other counties had light incidences in volunteer wheat.

At the present time, it is believed that the high levels of wheat streak mosaic in those specific volunteer fields do not pose much of a threat to production. These infested fields were generally isolated from production by considerable distance

and wheat curl mites were very hard to detect. It appears that farmers for the most part have managed the disease well after the epidemic of the past spring. The extreme hot dry weather of the summer likely kept wheat curl mite populations in check thus aiding the efforts by farmers in managing the disease.

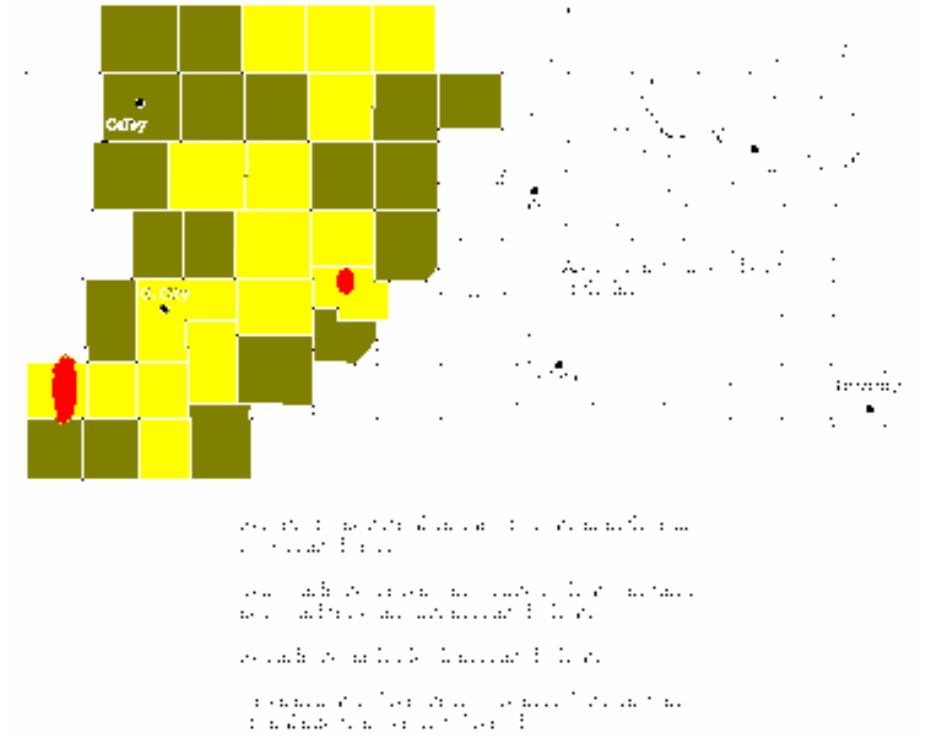

Figure 1. Wheat streak observations in counties of western Kansas.